

ABSTRACT OF DISCLOSURE

A constant current source extending the common-mode range comprises a differential pair of transistors connected to a third current source driving transistor. In an embodiment of the invention, the drains of the differential pair are coupled so as to obtain a common-mode voltage. The gate of the third transistor is connected to the drains of the differential pair in order to regulate current flowing through the third transistor. As the voltage decreases at the drain of the third transistor, the gate voltage on the third transistor increases to compensate for the lost voltage on the drain, thereby keeping the current constant even as the third transistor exits the saturation region.